

Application No. 09/211,715  
Reply to Office Action of November 20, 2002

May 7, 2003  
S&L File No. P26,835 USA

**In the claims:**

Please cancel claims 2 and 3 without prejudice.

Please amend the claims as follows:

8. A compound selected from the group consisting of
- (2-benzofuroyl)-Tyr-Chg-Arg-Pen-Pro-NH<sub>2</sub>;
- (2-benzofuroyl)-pAph-Chg-PalMe(3)-Pen(CH<sub>2</sub>COOH)-Pro-NH<sub>2</sub>;
- Ac-pAph-Chg-Arg-Cys(CH<sub>2</sub>COOH)-Pro-NH<sub>2</sub>;
- (Alloc)-pAph-Chg-Arg-I leu-Pro-NH<sub>2</sub>;
- (2-benzofuroyl)-pAph-Chg-Arg-Pen(CH<sub>2</sub>COOH)-Pro-NH<sub>2</sub>;
- Ac-pAph-Chg-PalMe(3)-Pen(CH<sub>2</sub>COOH)-Pro-NH<sub>2</sub>;
- Ac-pAph-Chg-Arg-Leu-Pro-NH<sub>2</sub>; Ac-pAph-Chg-Arg-(HOOC-CH<sub>2</sub>)Gly-Pro-NH<sub>2</sub>;
- Ac-pAph-Chg-Arg(HOOC-CH<sub>2</sub>-CH<sub>2</sub>)Gly-Pro-NH<sub>2</sub>;
- Ac-pAph-Chg-Arg-Gla-Pro-NH<sub>2</sub>; Ac-pAph-Chg-Arg-Cys(CH<sub>2</sub>-COOH)-Pro-NH<sub>2</sub>;
- Ac-Pal(4)Me-Chg-Arg-Leu-Pro-NH<sub>2</sub>; Ac-(iBu)Nal(2)-Chg-Arg-Leu-Pro-NH<sub>2</sub>;
- Ac-Phe(p-CONH<sub>2</sub>)-Chg-Arg-Leu-Pro-NH<sub>2</sub>;
- Ac-pAph-Chg-Arg-N[1(1,3-dicarboxy)propyl]Gly-Pro-NH<sub>2</sub>;
- Ac-pAph-Chg-Dap(CH=N(CH<sub>3</sub>)<sub>2</sub>)-Leu-Pro-NH<sub>2</sub>;
- (2-quinolinoyl)-Phe(NH<sub>2</sub>)-Chg-Arg-Leu-Pro-NH<sub>2</sub>;

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Ac-pAph-Chg-Arg-N(carboxymethyl)Gly-Pro-NH<sub>2</sub>;  
Ac-pAph-Chg-Arg-(carboxyethyl)Gly-Pro-NH<sub>2</sub>; Ac-mAph-Chg-Arg-Leu-Pro-NH<sub>2</sub>;  
Alloc-pAph-Chg-PalMe(3)-Pen(CH<sub>2</sub>COOH)-Pro-NH<sub>2</sub>;  
Ac-pAph-Chg-Arg-N[1(1,3-dicarboxy)propyl]Gly-Pro-NH<sub>2</sub>;  
Ac-pAph-Ile-Arg-Leu-Pro-NH<sub>2</sub>; Ac-Phe(pNH<sub>2</sub>)-Chg-Arg-(Me)Leu-Pro-NH<sub>2</sub>;  
Ac-(Chx-CH<sub>2</sub>)Tyr-Chg-Arg-Leu-Pro-NH<sub>2</sub>;  
(3-pyridoyl)-Phe(pNH<sub>2</sub>)-Chg-Arg-Leu-Pro-NH<sub>2</sub>;  
(3-pyridoyl)-Nal(2)-Chg-Arg-Leu-Pro-NH<sub>2</sub>;  
Ac-Pal(4)Me-Chg-Pal(4)Me-Leu-Pro-NH<sub>2</sub>; Alloc-pAph-Chg-Arg-Leu-Pro-NH<sub>2</sub>;  
(4-isoquinolinoyl)-Phe(pNH<sub>2</sub>)-Chg-Arg-Leu-Pro-NH<sub>2</sub>;  
Ac-pAph-Cha-PalMe(3)-(Me)Leu-Pro-NH<sub>2</sub>;  
Ac-pAph-Chg-PalMe(3)-Leu-Pro-NH<sub>2</sub>;  
(2-naphthyl-CH<sub>2</sub>)Phe(pNH<sub>2</sub>)-Chg-Arg-Leu-Pro-NH<sub>2</sub>;  
(5-pyrazinoyl)Nal(2)-Chg-Arg-Leu-Pro-NH<sub>2</sub>;  
(Benzoyl)-Phe(pNH<sub>2</sub>)-Chg-Arg-Leu-Pro-NH<sub>2</sub>;  
Ac-(2-methylpentanyl)-Tyr-Ile-Arg-Leu-Pro-NH<sub>2</sub>;  
(2-pyridonyl)Phe(pNH<sub>2</sub>)Chg-Arg-Leu-Pro-NH<sub>2</sub>;  
(Benzoyl)-Phe(pNH<sub>2</sub>)-Chg-Arg-Leu-Pro-NH<sub>2</sub>;

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Ac-(2-methypentyl)Tyr-Ile-Arg-Leu-Pro-NH<sub>2</sub>;  
Ac-(iBu)Phe(pCN)-Chg-Arg-Leu-Pro-NH<sub>2</sub>;  
Ac-(2-methybutyl)Tyr-Ile-Arg-Leu-Pro-NH<sub>2</sub>;  
Ac-Phe(pNH<sub>2</sub>)-Chg-Arg-Leu-Pro-NH<sub>2</sub>;  
Ac-Phe(pNH<sub>2</sub>)-Chg-Arg-Leu-Hyp-NH<sub>2</sub>; Ac-Tyr-Chg-Arg-Leu-Pro-NH<sub>2</sub>;  
(2-naphthylsulfonyl)-Phe(pNH<sub>2</sub>)-Chg-Arg-Leu-Pro-NH<sub>2</sub>;  
(2-methylbenzyl)-Phe(pNH<sub>2</sub>)-Chg-Arg-Leu-Pro-NH<sub>2</sub>;  
(2-benzofuroyl)-Phe(pNH<sub>2</sub>)-Chg-Dab(CH=N(CH<sub>3</sub>)<sub>2</sub>)-Leu-Pro-NH<sub>2</sub>;  
Ac-(cyclopentenyl-CH<sub>2</sub>)Tyr-Ile-Arg-Leu-Pro-NH<sub>2</sub>;  
Ac-Pal(4)Me-Chg-PalMe(3)-Leu-Pro-NH<sub>2</sub>;  
Ac-(iBu)-Phe(pNH<sub>2</sub>)-Chg-Arg-Leu-Pro-NH<sub>2</sub>; and  
Ac-(Chx-CH<sub>2</sub>)-Tyr-Ile-Arg-Leu-Pro-NH<sub>2</sub>.

9. A compound selected from the group consisting of  
Ac-pAph-Chg-Arg-Leu-NH<sub>2</sub> and Ac-pAph-Chg-Arg-Leu.

10. A compound selected from the group consisting of  
(2-benzofuroyl)-pAph-Chg-PalMe(3)-NH<sub>2</sub> and Ac-(iBu)Phe(pNH<sub>2</sub>)-Chg-Arg-NH<sub>2</sub>.

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11. A compound selected from the group consisting of  
Alloc-pAph-Chg-PalMe(3)-NH<sub>2</sub>; (2-quinolinoyl)-pAph-Chg-PalMe(3)-NH<sub>2</sub>;  
Ac-pAph-Chg-PalMe(3)-NH(1-methoxycarbonyl)-1-cyclohexyl;  
Ac-pAph-Chg-Arg-NH<sub>2</sub>; (2-pyridoyl)-pAph-Chg-PalMe(3)-NH<sub>2</sub>;  
CF<sub>3</sub>C(O)-(iBu)Phe(pNH<sub>2</sub>)-Chg-Arg-NH<sub>2</sub>;  
Ac-pAph-Chg-PalMe(3)-NH-(1-methoxycarbonyl)-1-cyclopentyl;  
Ac-pAph-Chg-PalMe(3)-NH-(4-methoxycarbonyl-cyclohexyl)methyl;  
Ac-pAph-Chg-PalMe(3)-NH-(3-thienyl-2-carboxylic acid methyl ester);  
Ac-pAph-Chg-Arg-NH<sub>2</sub>; CF<sub>3</sub>C(O)-(iBu)Tyr-Chg-Arg-OH;  
Ac-pAph-Chg-PalMe(3)-NH-(4-methoxycarbonyl-cyclohexyl)methyl;  
Ac-pAph-Chg-PalMe(3)-NH<sub>2</sub>; Ac-pAph-Chg-Pal(3)(CH<sub>2</sub>COOH)-NH<sub>2</sub>;  
(2-quinolinecarboxy)-pAph-Chg-PalMe(3)-NH<sub>2</sub>;  
Ac-pAph-Chg-PalMe(3)-NH-(4-carboxycyclohexyl) methyl; and  
CF<sub>3</sub>C(O)(iBu)-Tyr-Ile-Arg-NH<sub>2</sub>.

20. A compound selected from the group consisting of  
Ac-D-pAph-Chg-Arg-Leu-Pro-NH<sub>2</sub>; Ac-D-pAph-Chg-Arg-Gla-Pro-NH<sub>2</sub>;  
Ac-D-pAph-Chg-Arg-Cys(CH<sub>2</sub>-COOH)-Pro-NH<sub>2</sub>;  
Ac-D-pAph-Chg-Arg-N(carboxymethyl)Gly-Pro-NH<sub>2</sub>;

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*Ac-D-pAph-Chg-Arg-(carboxyethyl)Gly-Pro-NH<sub>2</sub>*;

*Ac-D-pAph-Chg-Arg-N[1(1,3-dicarboxy)propyl]Gly-Pro-NH<sub>2</sub>*;

*Ac-D-pAph-Ile-Arg-Leu-Pro-NH<sub>2</sub>*; *Alloc-D-pAph-Chg-Arg-Leu-Pro-NH<sub>2</sub>*;

*Ac-D-pAph-Chg-PalMe(3)-Leu-Pro-NH<sub>2</sub>*; and *Ac-D-pAph-Chg-Arg-NH<sub>2</sub>*.

25. A method of specifically inhibiting the activity of Factor Xa,  
comprising contacting the factor Xa with the compound as in claims 7, 8, 9, 10, 11,  
20, 21, 22, or 23.